

INTERNATIONAL SEARCH REPORT

International Application No

PCT/03/11967

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B05B17/06 B22F9/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B05B B22F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 981 425 A (LIERKE ERNST-GUNTER ET AL) 1 January 1991 (1991-01-01) column 3, line 36 - line 64; figure 1	1,2,8
A	US 5 122 047 A (SCHRECKENBERG PETER ET AL) 16 June 1992 (1992-06-16) column 2, line 43 - line 65; figures 1,2,5	1,2,5,11
A	DE 26 56 330 A (BATTELLE INSTITUT E V) 15 June 1978 (1978-06-15) page 11 - page 14; figure 1	1,2,5
A	US 5 164 198 A (SCHRECKENBERG PETER ET AL) 17 November 1992 (1992-11-17) column 2, line 8 - line 68; figures 1,5 column 3, line 29 - line 44; figure 1	1,2,5
	----- -/--	



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

8 document member of the same patent family

Date of the actual completion of the international search

17 February 2004

Date of mailing of the international search report

27/02/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Jelercic, D

INTERNATIONAL SEARCH REPORT

International Application No

PCT/93/11967

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 4981425	A	01-01-1991	DE	3732325 A1	13-04-1989
			EP	0308600 A1	29-03-1989
			JP	1151967 A	14-06-1989
US 5122047	A	16-06-1992	DE	3939178 A1	29-05-1991
			AT	123239 T	15-06-1995
			DE	59009180 D1	06-07-1995
			EP	0434980 A2	03-07-1991
			JP	3242257 A	29-10-1991
DE 2656330	A	15-06-1978	DE	2656330 A1	15-06-1978
US 5164198	A	17-11-1992	DE	3735787 A1	30-03-1989
			AT	61261 T	15-03-1991
			DE	3861942 D1	11-04-1991
			EP	0308933 A1	29-03-1989
			JP	1301810 A	06-12-1989
DE 3717831	A	08-12-1988	DE	3717831 A1	08-12-1988

INTERNATIONAL SEARCH REPORT

International Application No

PCT/E 8/11967

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 37 17 831 A (HOECHST AG) 8 December 1988 (1988-12-08) column 7, line 20 - line 45; figure 2 -----	1